

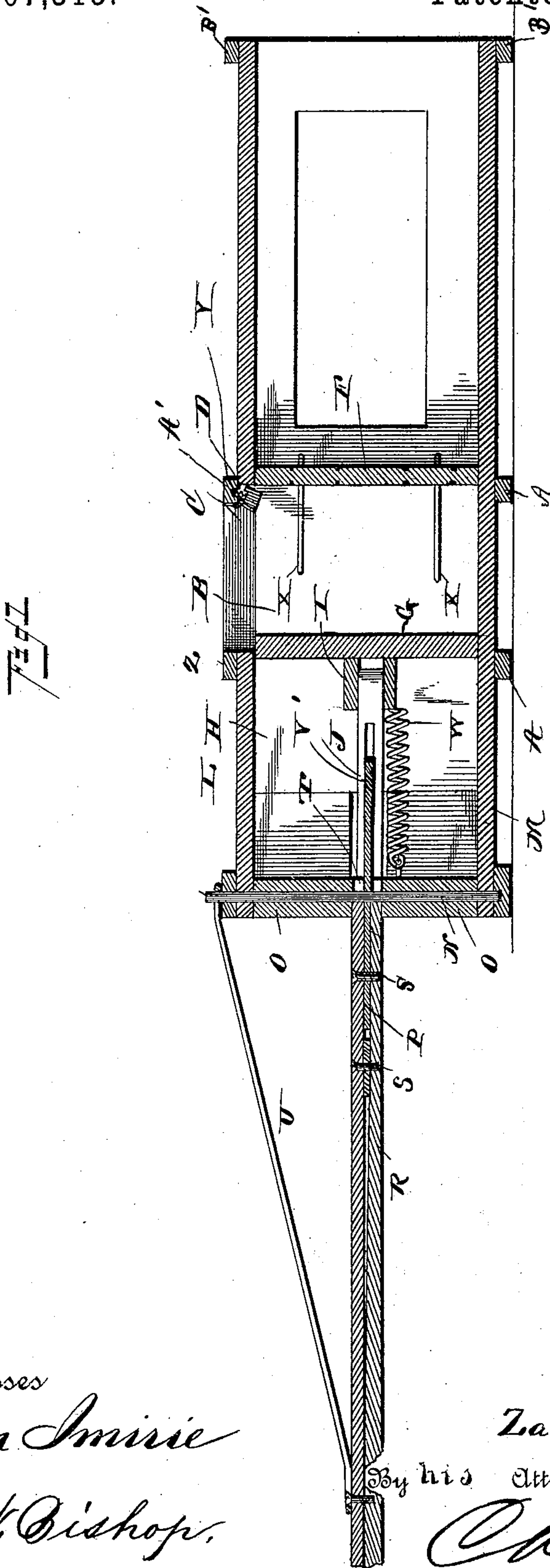
(No Model.)

2 Sheets—Sheet 1.

Z. J. ANDERSON.  
BALING PRESS.

No. 407,315.

Patented July 23, 1889.



Witnesses  
*John Smiric*  
*R. W. Bishop.*

Inventor  
*Zachariah J. Anderson*  
By his Attorneys  
*C. H. Snow*

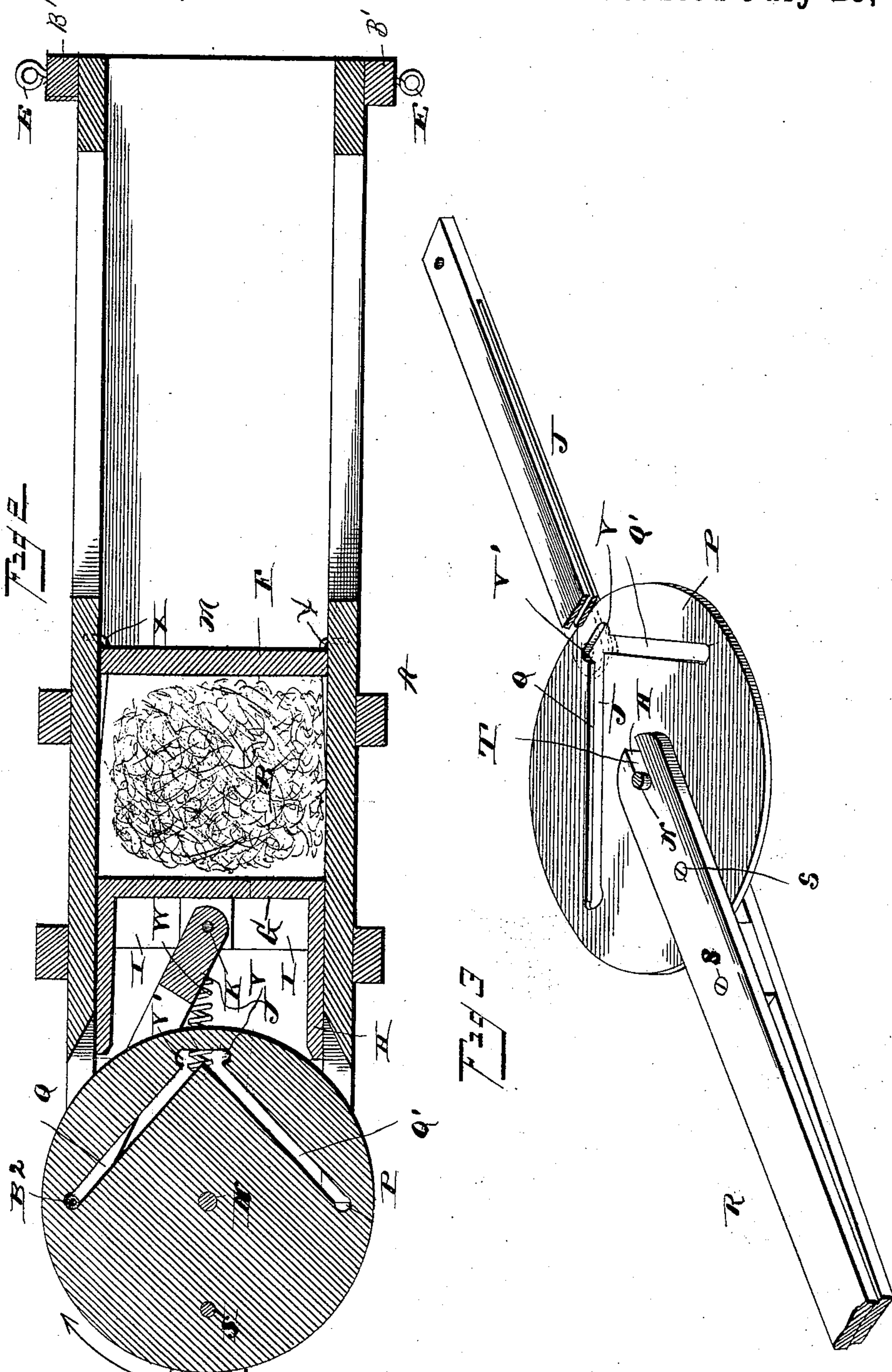
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# UNITED STATES PATENT OFFICE.

ZACHARIAH J. ANDERSON, OF FORT WORTH, TEXAS.

## BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 407,315, dated July 23, 1889.

Application filed February 13, 1889. Serial No. 299,769. (No model.)

*To all whom it may concern:*

Be it known that I, ZACHARIAH J. ANDERSON, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented a new and useful Improvement in Baling-Presses, of which the following is a specification.

This invention relates to baling-presses; and it has for its object to provide a device of this class which shall be simple in construction, in which considerable power may be exercised without the use of complicated machinery, and which shall be rapid and effective in operation.

The invention consists in the improved construction and arrangement of parts which will be hereinafter fully described with reference to the drawings, in which—

Figure 1 is a longitudinal vertical section of a baling-press embodying my improvements. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a detail view of the operating mechanism.

The same letters refer to the same parts in all the figures.

A designates the frame, which is provided with the baling-chamber B and the feed-opening C, arranged in the top of the frame over the baling-chamber. The rear or discharge end of the press-box is surrounded by a frame B', in the sides of which are arranged set-screws E, arranged to press against the sides of the press-box, which may thus be forced slightly together, so as to cause any desired degree of friction between said sides and the follower-block F.

G designates the reciprocating follower, which is provided with suitable guides H, whereby its motion is steadied. The front side of said follower is provided with lugs or flanges I I, between which the pitman J is mounted pivotally upon a pin K.

The top and bottom of the press-box, denoted, respectively, by letters L and M, are connected at their extreme front ends by a bolt N, surrounded by tubular cylindrical posts O, forming washers, between which the operating mechanism of the press is mounted. Said mechanism comprises a circular disk or plate P, constructed, preferably, of cast-iron, and provided with slots Q Q', arranged at right angles to each other, as will be clearly seen in

Figs. 2 and 3 of the drawings. At the point of intersection of the slots Q Q', which is at the front end of the disk, are formed notches V V', which are practically continuations of the slots Q Q', respectively. The disk P is mounted loosely upon the bolt N by a central perforation in said disk, and firmly secured to the latter is the sweep or operating-lever R, the inner end of which is slotted, so that its ends shall pass respectively above and below the disk P, to which said sweep may be secured by means of screws S. The inner end of the operating-lever also has a vertical notch T, whereby it is placed in position upon the bolt N. A brace U connects the operating-lever with the upper end of the bolt N. A spring W of sufficient strength to retract the follower connects the latter with one of the posts or washers O surrounding the bolt N.

The sides of the press-box are provided with interiorly-arranged detaining-springs X, to retain the hay or other material which is being pressed in the baling-chamber.

Y designates a strip or plate which is hinged to the under side of the rear end of the frame Z, which surrounds the feed-opening C and which folds under the said frame-piece flush with the top of the baling-chamber, or nearly so. Between the hinged plate Y and the frame Z springs A' are interposed. This spring-actuated plate serves to smooth and compress the hay or other material as it is being forced into the baling-chamber, thereby assisting in making a compact and neatly-appearing bale.

The front end of the pitman J, which is pivoted to the follower, is bifurcated, and extends above and below the operating-disk P.

B<sup>2</sup> designates a friction-roller journaled in the bifurcated end of the pitman, and working in the slots Q Q' of the operating-disk and in the extensions V V' of the said slots.

The operation of this invention is as follows: The friction-roller at the end of the pitman is normally at rest in the outer end of one of the slots Q Q', or in one of the notches V V'. When in the former position, the sweep, which extends forwardly at an angle of forty-five degrees to the slots Q Q', extends directly from the press-box, as shown in the drawings. When the sweep is moved in the direction of the arrow, the disk P acts as a



cam and forces the pitman and follower rearwardly into the baling-chamber until the sweep reaches the limit of its scope, when the retractile spring will force the follower out of the baling-chamber and cause the friction-roller at the end of the pitman to enter the notch V, which forms a continuation of the slots Q, from which it escapes. The sweep is then moved in the opposite direction until the friction-roller escapes from the notch V, and, rebounding, enters the slot Q'. The operation of the lever is then continued until the follower again rebounds and the friction-roller enters the notch V', after which the operation of the lever is again reversed until the original position of the parts is resumed. It will thus be seen that each operation of the sweep or operating-lever is attended by two operations of the follower. Between each two operations of the latter material may be fed into the press-box through the feed-opening C. When the bale is completed, one of the loose followers F is interposed between the end of the bale and the follower G, and it will thus be seen that my improved press is continuous in its operation.

Having thus described my invention, I claim—

1. In a baling-press, the combination of the reciprocating follower, a retracting-spring connecting said follower with the end of the press-frame, a pitman connected pivotally to the said follower and having a friction-roller at its front end, and a horizontal operating-disk having slots formed therein at right angles to each other, and notches or exten-

sions at their meeting ends, substantially as set forth.

2. The herein-described operating mechanism for baling-presses, comprising the disk-plate having slots formed therein at right angles to each other, and notches formed at the meeting ends of the said slots, and forming practically continuations thereof, in combination with a pitman connected pivotally to a reciprocating follower and having a friction-roller operating in the said slots and notches, substantially as set forth.

3. In a baling-press, the combination of the press-box, the reciprocating follower, the pitman pivoted to the latter, a vertical bolt at the front end of the press-frame, a horizontal operating-disk mounted loosely on said bolt and having slots formed at right angles to each other, and notches forming continuations of said slots, the bifurcated sweep or operating-lever attached to said cam-plate between a pair of tubular posts or washers upon the bolt, the retracting-spring connecting the follower with the vertical bolt or with one of the posts surrounding the same, and a friction-roller journaled to the end of the pitman and working in the slots and notches in the cam-plate, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ZACHARIAH J. ANDERSON.

Witnesses:

J. J. SCOTT,  
H. S. BROILES.